

What is claimed is:

1. A submersible glider comprising:
a hull having a bow and a stern; and
a first generally planar lifting surface disposed toward the stern, the first lifting
5 surface having a pair of generally planar stabilizer surfaces extending
generally perpendicular to a plane of the first lifting surface from ends of the
first lifting surface.
2. The glider of Claim 1, wherein the hull includes a wave-piercing hull.
3. The glider of Claim 2, wherein the wave-piercing hull is inflatable.
- 10 4. The glider of Claim 3, wherein the hull is substantially cylindrical.
5. The glider of Claim 4, further comprising a second generally planar lifting surface
disposed toward the stern, the second lifting surface being substantially parallel to the first
lifting surface and being attached to the pair of stabilizer surfaces.
6. The glider of Claim 4, further comprising at least one steering device disposed
15 toward the bow.
7. The glider of Claim 6, wherein the steering device includes a deflection surface that
is spaced apart from the hull such that a boundary layer of fluid is flowable between the
deflection surface and the hull.
8. The glider of Claim 4, further comprising a canard disposed toward the bow.
- 20 9. The glider of Claim 8, wherein the canard includes a running that is collapsible
against the hull.
10. The glider of Claim 4, further comprising a tail cone section disposed at the stern.
11. The glider of Claim 10, wherein the tail cone is inflatable.
12. The glider of Claim 4, further comprising a nose cone disposed at the bow.
- 25 13. The glider of Claim 12, wherein the nose cone has an axis that is not collinear with
an axis of the hull.


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14. The glider of Claim 1, further comprising a propulsion system.
15. The glider of Claim 14, wherein the propulsion system includes a jet ski.
16. The glider of Claim 15, wherein the propulsion system further includes a ring propeller.
- 5 17. The glider of Claim 15, further comprising a lifting ski disposed toward the bow.
18. The glider of Claim 5, wherein the second lifting surface includes control surfaces.
19. The glider of Claim 18, wherein the control surfaces include elevons.
20. The glider of Claim 1, further comprising at least one attachment device configured to releasably attach at least one external store.
- 10 21. The glider of Claim 20, wherein the at least one external store includes a torpedo.
22. The glider of Claim 1, wherein the hull defines a hold, the glider further comprising a hatch configured to releasably seal the hold.
23. The glider of Claim 22, wherein the hold includes a personnel cabin.
24. The glider of Claim 22, wherein the hold is configured to receive and interval store.
- 15 25. The glider of Claim 24, wherein the internal store includes an unmanned aerial vehicle (UAV).
26. A submersible glider having a step-wise glider range, the glider comprising:
a substantially cylindrical hull having a bow and a stern;
a first generally planar lifting surface disposed toward the stern, the first lifting
20 surface having a pair of generally planar stabilizer surfaces extending
generally perpendicular to a plane of the first lifting surface from ends of the
first lifting surface;
a nose cone disposed at the bow; and
at least one steering device disposed toward the bow.
- 25 27. The glider of Claim 26, further comprising a second generally planar lifting surface disposed toward the stern, the second lifting surface being substantially parallel to the first lifting surface and being attached to the pair of stabilizer surfaces.

28. The glider of Claim 26, wherein the steering device includes a deflection surface that is spaced apart from the hull such that a boundary layer of fluid is flowable between the deflection surface and the hull.

29. The glider of Claim 26, further comprising a canard disposed toward the bow.

5 30. The glider of Claim 29, wherein the canard includes a running that is collapsible against the hull.

31. The glider of Claim 26, further comprising a tail cone section disposed at the stern.

32. The glider of Claim 31, wherein the tail cone is inflatable.

10 33. The glider of Claim 26, wherein the nose cone has an axis that is not collinear with an axis of the hull.

34. The glider of Claim 26, further comprising a propulsion system.

35. The glider of Claim 34, wherein the propulsion system includes a jet ski.

36. The glider of Claim 35, wherein the propulsion system further includes a ring propeller.

15 37. The glider of Claim 35, further comprising a lifting ski disposed toward the bow.

38. The glider of Claim 27, wherein the second lifting surface includes control surfaces.

39. The glider of Claim 38, wherein the control surfaces include elevons.

40. The glider of Claim 26, further comprising at least one attachment device configured to releasably attach at least one external store.

20 41. The glider of Claim 40, wherein the at least one external store includes a torpedo.

42. The glider of Claim 26, wherein the hull defines a hold, the glider further comprising a hatch configured to releasably seal the hold.

43. The glider of Claim 42, wherein the hold includes a personnel cabin.

44. The glider of Claim 42, wherein the hold is configured to receive and interval store.

45. The glider of Claim 24, wherein the internal store includes an unmanned aerial vehicle (UAV).

46. A submersible glider comprising:

a wave-piercing hull having a bow and a stern;

5 a generally planar surface substantially disposed toward the stern, the generally planar surface having a pair of generally planar stabilizer surfaces extending generally perpendicular to a plane of the generally planar surface from ends of the generally planar surface; and

a pair of lifting skis disposed on the pair of stabilizer surfaces.

10 47. The glider of Claim 46, wherein the glider has a first state having positive buoyancy.

48. The glider of Claim 47, wherein the glider is configured to float on the pair of lifting skis and the wave-piercing hull when the glider is in the first state, such that the generally planar surface is spaced above a surface of water.

15 49. The glider of Claim 46, wherein the glider has a second state having at least one of neutral buoyancy and negative buoyancy.

50. The glider of Claim 49, wherein the wave-piercing hull is interposed between the generally planar surface and a surface of water when the glider is in the second state.

51. The glider of Claim 46, further comprising a propulsion system.

20 52. The glider of Claim 51, wherein the propulsion system includes a jet ski.

53. The glider of Claim 52, wherein the jet ski includes a ring propeller.

54. The glider of Claim 46, further comprising at least one attachment device configured to releasably attach at least one external store.

55. The glider of Claim 54, wherein the at least one external store includes a torpedo.

25 56. The glider of Claim 46, wherein the hull defines a hold, the glider further comprising a hatch configured to releasably seal the hold.

57. The glider of Claim 56, wherein the hold includes a personnel cabin.


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58. The glider of Claim 46, further comprising a towing mechanism configured to reel in and reel out a towline from the glider.

59. A marine transport system comprising:

a submersible glider having a step-wise glider range; and

5 a surfaced glider having a towing mechanism configured to reel in and reel out from the surfaced glider a towline that is connectable to the submersible glider.

60. The system of Claim 59, wherein the surfaced glider defines a hold, the surfaced glider further comprising a hatch configured to releasably seal the hold.

10 61. The system of Claim 60, wherein the hold includes a personnel cabin.

62. The system of Claim 59, wherein the submersible glider includes:

a substantially cylindrical hull having a bow and a stern;

15 a first generally planar lifting surface disposed toward the stern, the first lifting surface having a pair of generally planar stabilizer surfaces extending generally perpendicular to a plane of the first lifting surface from ends of the first lifting surface;

a nose cone disposed at the bow; and

at least one steering device disposed toward the bow.

63. The system of Claim 59, wherein the surfaced glider includes:

20 a wave-piercing hull having a bow and a stern;

a generally planar surface substantially disposed toward the stern, the generally planar surface having a pair of generally planar stabilizer surfaces extending generally perpendicular to a plane of the generally planar surface from ends of the generally planar surface; and

25 a pair of lifting skis disposed on the pair of stabilizer surfaces.